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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/966,407 | 09/28/2001 | Robert E. Haines | 10012345-1 | 8759 |

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HEWLETT-PACKARD COMPANY
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EXAMINER

NGUYEN, TUAN HOANG

ART UNIT PAPER NUMBER

2618

DATE MAILED: 12/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|-----------------|---------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 09/966,407 | HAINES ET AL. | |
| | Examiner | Art Unit | |
| | Tuan H. Nguyen | 2618 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response To Arguments

1. Applicant's arguments, see applicant's remarks, filed on 04/24/2006, with respect to the rejection(s) of claims 1-20 under 35 U.S.C § 102(e) and 35 U.S.C § 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Shultz (US PAT. 5,603,087) and Olkkonen et al. (US PAT. 6,842,460 hereinafter, "Olkkonen").

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4, 8-12, and 15-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shultz (US PAT. 5,603,087) in view of Olkkonen et al. (US PAT. 6,842,460 hereinafter, "Olkkonen").

Consider claim 1, Shultz teaches a method of identifying and prioritizing wireless network devices, the method comprising: detecting a signal from one or more wireless network devices, wherein each signal has at least one signal quality (see fig. 1a, 1b,

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and 1c col. 3 line 56 through col. 4 line 10); querying for supplemental information from each of the detected wireless network devices (col. 4 lines 11-20); identifying each of the detected wireless network devices that match a selection criteria using the supplemental information (col. 4 lines 21-34).

Shultz does not explicitly show that associating the at least one signal quality with its respective wireless network device for each wireless network device that matches the selection criteria; and prioritizing the wireless network devices that match the selection criteria based on their associated at least one signal quality.

In the same field of endeavor, Olkkonen teaches associating the at least one signal quality with its respective wireless network device for each wireless network device that matches the selection criteria (col. 6 lines 27-43); and prioritizing the wireless network devices that match the selection criteria based on their associated at least one signal quality (col. 6 lines 27-43).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use, associating the at least one signal quality with its respective wireless network device for each wireless network device that matches the selection criteria; and prioritizing the wireless network devices that match the selection criteria based on their associated at least one signal quality, as taught by Olkkonen, in order to provide a new short-range wireless device arrives within the communication range of any member of the ad hoc network, its inquiry signals are answered by a member detecting the inquiry. If the responding member is an ad hoc network

information provider, it responds with information accessed from its memory characterizing the ad hoc network.

Consider claim 2, Olkkonen further teaches detecting a signal from one or more wireless network devices further comprises broadcasting a request (read on “gathers information”) from a reference network device and detecting a response from the one or more wireless network devices (col. 21 lines 4-19).

Consider claim 3, Olkkonen further teaches the at least one signal quality includes a signal quality selected from the group consisting of a signal strength, a signal noise and a signal-to-noise ratio (col. 6 lines 44-51).

Consider claim 4, Olkkonen further teaches identifying each of the detected wireless network devices that match a selection criteria comprises at least one selection criterion selected from the group consisting of device type, device name, device features, device capabilities, device status, past device performance, available consumables, transaction costs and device permissions (col. 22 lines 34-38).

Consider claim 5, Shultz further teaches identifying each of the detected wireless network devices that match a selection criteria further comprises: generating a data structure comprising supplemental information associated with the detected wireless network devices (col. 4 lines 21-34); and searching the supplemental information to

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identify those detected wireless network devices that match the selection criteria (col. 4 lines 21-34).

Consider claim 6, Olkkonen further teaches associating the at least one signal quality with its respective wireless network device for each wireless network device that matches the selection criteria further comprises associating each at least one signal quality with its respective wireless network device in the data structure prior to searching the supplemental information to identify those detected wireless network devices that match the selection criteria (col. 6 lines 27-43).

Consider claim 8, Olkkonen further teaches prioritizing the wireless network devices that match the selection criteria based on their associated at least one signal quality further comprises prioritizing the wireless network devices that match the selection criteria based on a signal strength of the received signal such that the wireless network device associated with the highest signal strength receives the highest priority (col. 4 lines 60-67).

Consider claim 9, Olkkonen further teaches establishing communication with the wireless network device that matches the selection criteria and has the highest priority (col. 46 lines 51-60).

Consider claim 10, Olkkonen further teaches providing a list of the prioritized

wireless network devices that match the selection criteria to a user (col. 47 lines 25-29); and establishing communication with a wireless network device selected from the prioritized list by the user (col. 47 lines 25-29).

Consider claim 11, Olkkonen further teaches highlighting a portion of the list of prioritized wireless network devices based on a signal quality of the detected signals (col. 4 lines 60-67).

Consider claim 12, Shultz teaches a method of identifying and prioritizing wireless network devices, the method comprising: for one or more wireless network devices: detecting a wireless network device, wherein the wireless network device transmits a signal having a first signal quality (see fig. 1a, 1b, and 1c col. 3 line 56 through col. 4 line 10); querying the wireless network device to determine whether it is of a desired type (col. 4 lines 11-20); querying the wireless network device to determine whether it has a desired status (col. 4 lines 21-34).

Shultz does not explicitly show that associating the first signal quality with the wireless network device when it is of the desired type and it has the desired status; generating a list of wireless network devices that are of the desired type and have the desired status; and prioritizing the list of wireless network devices based at least on their associated first signal quality.

In the same field of endeavor, Olkkonen teaches associating the first signal quality with the wireless network device when it is of the desired type and it has the

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desired status (col. 6 lines 27-43); generating a list of wireless network devices that are of the desired type and have the desired status (col. 4 lines 60-67); and prioritizing the list of wireless network devices based at least on their associated first signal quality (col. 21 lines 36-40).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use, associating the first signal quality with the wireless network device when it is of the desired type and it has the desired status; generating a list of wireless network devices that are of the desired type and have the desired status; and prioritizing the list of wireless network devices based at least on their associated first signal quality, as taught by Olkkonen, in order to provide a new short-range wireless device arrives within the communication range of any member of the ad hoc network, its inquiry signals are answered by a member detecting the inquiry. If the responding member is an ad hoc network information provider, it responds with information accessed from its memory characterizing the ad hoc network.

Consider claim 15, Olkkonen further teaches establishing communications with the wireless network device of the prioritized list of wireless network devices that has the highest priority (col. 46 lines 51-60).

Consider claim 16, Olkkonen further teaches providing the prioritized list of

wireless network devices to a user; and in response to a user selection of one of the wireless network devices of the prioritized list of wireless network devices, establishing communications with the selected wireless network device (col. 47 lines 25-29).

Consider claim 17, Olkkonen further teaches a portion of the prioritized list of wireless network devices is highlighted based on a second signal quality of the transmitted signals (col.4 lines 60-67).

Consider claim 18, Shultz teaches a computer-usable medium having computer-readable instructions stored thereon capable of causing a processor to perform a method, the method comprising: for each of one or more transmitting wireless network devices, receiving a signal, wherein the signal has at least one signal quality (see fig. 1a, 1b, and 1c col. 3 line 56 through col. 4 line 10); querying for supplemental information from each wireless network device associated with a received signal (col. 4 lines 11-20); associating each at least one signal quality with its respective wireless network device and its supplemental information (col. 4 lines 21-34); comparing the supplemental information with a selection criteria to determine whether any wireless network device matches the selection criteria (col. 4 lines 21-34).

Shultz does not explicitly show that if a wireless network device matches the selection criteria, prioritizing that wireless network device against other wireless network devices matching the selection criteria, wherein the prioritization is based on the at least

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one signal quality for each of the wireless network devices matching the selection criteria.

In the same field of endeavor, Olkkonen teaches if a wireless network device matches the selection criteria, prioritizing that wireless network device against other wireless network devices matching the selection criteria, wherein the prioritization is based on the at least one signal quality for each of the wireless network devices matching the selection criteria (col. 4 lines 60-67).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use, if a wireless network device matches the selection criteria, prioritizing that wireless network device against other wireless network devices matching the selection criteria, wherein the prioritization is based on the at least one signal quality for each of the wireless network devices matching the selection criteria, as taught by Olkkonen, in order to provide a new short-range wireless device arrives within the communication range of any member of the ad hoc network, its inquiry signals are answered by a member detecting the inquiry. If the responding member is an ad hoc network information provider, it responds with information accessed from its memory characterizing the ad hoc network.

Consider claim 19, Olkkanen further teaches the at least one signal quality comprises a signal strength and wherein the method further comprises: prioritizing the wireless network devices based on signal strength (col. 4 lines 60-67); and establishing

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communications with the wireless network device having the highest signal strength (col. 46 lines 51-60).

4. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shultz in view of Olkkonen and further in view of Terlep et al. (U.S PAT. 5,796,777 hereinafter, "Terlep").

Consider claim 7, Shultz and Olkkonen in combination, fails to teaches prioritizing the wireless network devices that match the selection criteria based on their associated at least one signal quality further comprises prioritizing the wireless network devices using a first sort order based on a first signal quality and using a second sort order based on a second signal quality.

However, Terlep teaches prioritizing the wireless network devices that match the selection criteria based on their associated at least one signal quality further comprises prioritizing the wireless network devices using a first sort order based on a first signal quality and using a second sort order based on a second signal quality (col. 1 lines 28-39).

Therefore, it is obvious to one of ordinary skill in the art at the time the invention was made to incorporate the disclosing of Terlep into view of Shultz and Olkkonen in order to provide for selecting one of the first and second digitized based on the first and second signal quality measurements.

5. Claims 13-14, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shultz (US PAT. 5,603,087) in view of Olkkonen and further in view of Dupray (U.S. PUB. 2004/0266457).

Consider claim 13, Shultz and Olkkonen in combination, fails to teaches the first signal quality is indicative of a relative distance to the transmitting device or a presumed quality of service available from the transmitting device.

However, Dupray teaches the first signal quality is indicative of a relative distance to the transmitting device or a presumed quality of service available from the transmitting device (page 29 [0347] and [0349]).

Therefore, it is obvious to one of ordinary skill in the art at the time the invention was made to incorporate the disclosing of Dupray into view of Shultz and Olkkonen in order to provide for locating a wireless mobile station using a plurality of mobile station location estimators.

Consider claim 14, Dupray further teaches the signal transmitted from each wireless network device further has at least one additional signal quality (page 31 [0367]).

Consider claim 20, Dupray further teaches attenuating each received signal if at least one of the received signals is saturated (page 32 [0382]).

Conclusion

6. Any response to this action should be mailed to:

Mail Stop_____ (Explanation, e.g., Amendment or After-final, etc.)

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Facsimile responses should be faxed to:

(571) 273-8300

Hand-delivered responses should be brought to:

Customer Service Window

Randolph Building

401 Dulany Street

Alexandria, VA 22313

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan H. Nguyen whose telephone number is (571) 272-8329. The examiner can normally be reached on 8:00Am - 5:00Pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Maung Nay A. can be reached on (571) 272-7882. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

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Information Consider the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

T.N.
Tuan Nguyen
Examiner
Art Unit 2618

Quochien B. Vuong 11/17/06
QUOCHIEN B. VUONG
PRIMARY EXAMINER